

Lees - Direct/McMillan

62

Libby

1 contrast microscopy, and how does it work?
2 A Oh. Okay. Sure. Phase contrast microscopy is the method
3 of analysis for air samples. Okay? A sample, as I said, is
4 collected -- fibers are collected on a filter. The filter is
5 examined under a light microscope that is not a whole lot
6 different than the microscope that you used in tenth grade
7 biology. Fibers conforming to certain dimensions are counted,
8 and then from that we can calculate the concentration of fibers
9 in the air.

10 Q Does the phased contrast microscopy method allow you to
11 determine which of those fibers are asbestos?

12 A No. It does not differentiate.

13 MR. WEHNER: Objection. Foundation. Hearsay. This
14 is beyond the scope of his expert report, his disclosures.

15 MR. McMILLAN: Your Honor, no, it's not. As part of
16 his expert disclosures he applies a conversion factor. He
17 applies a different method that we're about to get into to
18 determine what proportion of the fibers are actually asbestos,
19 and then applies that within his job exposure matrix.

20 MR. WEHNER: Your Honor, this is the subject of the
21 expert report -- an entirely different expert with a similar
22 name, a Dr. Richard Lee, not Dr. Peter Lees.

23 THE COURT: Well, pull out the report and show me
24 where it is. That's the easiest way to find out whether it's
25 in or outside the scope of the report.

PP
Obj.
R;
F;
H;
UP;
ET

Libby

Lees - Direct/McMillan

63

PP
Obj:
R;
H;
F;
UP;
ET

1 MR. McMILLAN: Your Honor, I would refer you to his
2 July 31st, 2007 report, on Page 1.

3 THE COURT: Where is it?

4 MR. McMILLAN: Could I have the ELMO, please?

5 (Pause)

6 MR. McMILLAN: As Dr. Lees explains here, as
7 described in his earlier report and the reports of other Grace
8 experts, it's widely accepted that PCM fiber analysis of air
9 samples collected in non-manufacturing environments will
10 overestimate actual asbestos fiber exposures, which is just
11 what he said. TEM analysis of samples allows the
12 identification of asbestos fibers and thereby a more accurate
13 estimation of actual asbestos fiber concentration. The
14 magnitude of this overestimation, i.e., the ratio of the
15 asbestos fiber concentration derived from TEM analysis to the
16 total fiber concentration derived from PCM analysis varies with
17 the composition of the product. So, ratio can be used to
18 adjust total fiber exposure estimates to derive equivalent
19 asbestos fiber exposures termed PCME from PCM analyses to
20 determine compliance with OSHA exposure standards. That's
21 exactly what I'm asking him to describe right now.

22 MR. WEHNER: Your Honor, I'd point out the next
23 paragraph states, "These analyses have been completed and are
24 presented in the expert report of R.J. --" Richard J. Lee,
25 dated July 31st, 2000.

Lees - Direct/McMillan

64

PP
OBJ:
R;
F;
H;
UP;
E1

Libby

1 THE COURT: Yes. And this witness is an expert.
2 He's been offered to report an expert opinion, and experts use
3 other expert reports as part of their opinion.

4 MR. WEHNER: That's right, Your Honor. Another
5 expert developed these factors, and we would object to any
6 testimony from this expert about those factors.

7 THE COURT: Wait. He's not testifying to factors.
8 He's simply describing a process that his report identifies.
9 So far that's all he's done. He hasn't been asked yet, at
10 least, to talk about factors. What he's been asked to do is --
11 at the moment, the last question was whether or not you could
12 count particular types of factors based on the concentration of
13 fibers in the air using particular methodology. That's all.

14 MR. McMILLAN: Your Honor, may I ask him a couple of
15 foundation questions?

16 THE COURT: Well, I think the issue is this in his
17 report or not? And so far, I think it's within the construct
18 of his report. If you get too far outside it, then I think
19 it's going to go perhaps beyond the industrial hygiene, and you
20 do have another expert who has developed factors that you may
21 wish to get into. But so far I think you're within his report.
22 That objection is overruled, so far.

23 Q Dr. Lees, is it customary as an industrial hygienist to
24 work with and rely upon the work of a materials expert to help
25 you develop an adjustment factor for your PCM samples?

Lees - Direct/McMillan

65

Libby

1 A Yes. Industrial hygienists typically do not do the
2 analytical portion of any exposure assessment. That -- we rely
3 on experts to do that, other experts.

4 Q And as Richard Lee was doing the analytics, develop the
5 conversion factors that you're using, were you involved in
6 discussing with him how to do that analysis and what you needed
7 it for in your report?

8 A Yes. We had extensive discussions before he carried out
9 the actual mechanics of calculating the conversion factors.

10 Q And was it your work for vermiculite attic insulation back
11 in 2002 where you collected many of the samples that were then
12 analyzed by Dr. Lee to create the conversion factor that you
13 used?

14 A Yes, it was -- my samples were the basis of those
15 conversions.

16 Q The question I was on before, Dr. Lees, is does the -- do
17 the fibers counted with phase contrast microscopy, do you know
18 if those are asbestos fibers or other types of fibers?

19 A The method does not differentiate as to composition.

20 Q Is there another way to determine whether those fibers are
21 actually asbestos?

22 A Certainly. Transmission electron microscopy hooked with
23 another tool called energy dispersive spectrometry will allow
24 the identification of the composition -- whether it's asbestos
25 or not.

PP
Obj:
R;
F;
H;
UP;
ET

Lees - Direct/McMillan

66

PP
Obj:
R;
F;
H;
UP;
ET

Libby

1 MR. McMILLAN: Could we have the graphics back,
2 please?

3 Q Has OSHA approved a method involving transmission electron
4 microscopy for determining the proportion of fibers that are
5 actually asbestos?

6 A Yes. In 19 -- I believe it was '88, NIOSH published as a
7 standard method such a procedure, and OSHA recognized it as --
8 recognized it -- I can't even say it -- recognizes it as a way
9 of showing compliance.

10 Q How does --

11 MR. WEHNER: Excuse me, Scott. Your Honor, I would
12 renew the objection. He's now describing the conversion
13 method, which he did not develop.

14 THE COURT: He is not describing the conversion
15 factor. He's been asked whether the government recognizes and
16 has approved a process, and he's testified that, yes, it does,
17 and his earlier background indicates that, in fact, he has been
18 a participant in certain, not particular, but in certain
19 aspects of government studies that have utilized those factors.
20 So far, he's within the bounds of this witness's expertise, and
21 not outside the bounds of the report. Overruled.

22 Q Could you please explain how NIOSH Method 7402 works?

23 A Okay. I'll try to do it quickly. A filter, a given
24 filter is analyzed using phase contrast microscopy, and the
25 fibers -- all fibers counted that conform to certain size --

Lees - Direct/McMillan

67

PP
OBJ:
R;
F;
H;
UP;
E]

Libby

1 specified size characteristics. So, that gives you the total
2 number of fibers of all types. The fiber is then counted using
3 transmission electron microscopy, which allows us to identify
4 what proportion of all of those fibers are asbestos fibers.
5 And quite simply, you develop a ratio of asbestos fibers to
6 total fibers, and so you could say, for instance, that 50
7 percent of the fibers conforming to these certain size
8 characteristics on the filter were asbestos fibers.

9 Q Was it necessary for you in this case to determine what
10 proportion of the fibers that were measured in the PCM data
11 that you had were actually asbestos?

12 A As I said earlier, especially in the construction
13 environment, there are many different types of fibers present,
14 and the concern here, and the risk of disease is related to the
15 asbestos fibers.

16 MR. McMILLAN: I'd like to show GG-2220, please.

17 Q How did you determine which conversion factors you should
18 use for the PCM data in your report?

19 A Okay. Well, I should start out by stating, first of all,
20 that there is not a universal conversion factor or adjustment
21 factor. They are specific to products, and product uses, so
22 using these groupings that I previously developed, I discussed
23 with Dr. Lee the criteria, the relevant samples that could be
24 used to -- to be used according to the method described in
25 NIOSH Method 7402 to develop these factors.

Lees - Direct/McMillan

68

PP
Obj:
R;
F;
H;
UP;
ET

Libby

1 Q So, was NIOSH Method 7402 what was used to develop the
2 conversion factors that you employed?

3 A Yes.

4 MR. WEHNER: Objection. I'm going to renew the
5 objection again. He's now talking definitely about how the
6 conversion factor was developed.

7 THE COURT: In this instance that's a hearsay
8 statement. Sustained.

9 Q Dr. Lees, did you participate in the decision as to how to
10 develop the conversion factor to be utilized for PCM data in
11 your report?

12 A Yes. In my discussions with Dr. Lee, it was jointly
13 decided that NIOSH Method 7402 was the appropriate method to
14 develop these conversion factors.

15 (Pause)

16 Q One last question, Doctor. Dr. Lees, on Table 1 shown in
17 GG-2220, do those represent the conversion factors that you
18 used to apply to the PCM data in your analysis in this case?

19 A They do.

20 MR. McMILLAN: Can we show GG-2221, please?

21 Q I think you mentioned earlier that you had created a job
22 exposure matrix. Can you explain to us what a job exposure
23 matrix is?

24 A Well, again, it is a tool for organizing exposure data in
25 terms of the relevant predictors of exposure in broad terms.

Lees - Direct/McMillan

69

Libby

PP
Ob;
R;
F;
H;
UP;
ET

1 Q Is a job exposure matrix something that's commonly used in
2 industrial hygiene?

3 A It is a standard part, in particular, of retrospective
4 exposure assessment, and it's used more broadly within the
5 field, too.

6 Q Okay. If we look at GG-2221, let's start first with the
7 product and use categories. Are those the ones that we talked
8 about earlier --

9 THE COURT: Pardon me. Mona, can you turn that off?
10 Otherwise we're never going to be able to hear against that.
11 If you turn -- I think it's -- okay.

12 THE WITNESS: I'm having a hard time, too.

13 THE COURT: Yes. I'm sorry. It's -- they keep
14 pushing the date earlier. I think they don't change the
15 clocks, even though the clock is changed.

16 THE WITNESS: It's spring, right?

17 THE COURT: It should turn off in a second. Or not.

18 (Pause)

19 MR. McMILLAN: It's winding down.

20 Q Dr. Lees, first discussing the product and use categories
21 that you created, can you show us where those product and use
22 categories appear in your job exposure matrix?

23 A Okay. The product and uses are defined on the left-hand
24 side, the left-hand column of the matrix, by the number one.
25 This -- not all of the -- in this portrayal not all of the

Lees - Direct/McMillan

70

PP
Obj:
R;
F;
H;
UP;
ET

Libby

1 categories are listed. This is just a summary, or a brief
2 excerpt.

3 Q Second, the nature of exposure categories, or the exposure
4 groups that you created, where do those appear on your job
5 exposure matrix?

6 A Those are number two, across the top of the matrix. And
7 again, there were five categories there instead of just the
8 three shown.

9 Q Okay. And essentially this just looks like a spreadsheet.
10 Is that essentially what it is?

11 A Yes.

12 Q Now, lastly, the exposure data that you had gathered and
13 calculated averages on, where does the exposure data go?

14 A Okay. Each of these groups of data that I've previously
15 described as being put into buckets would be -- the average
16 from each bucket would be transferred or entered into the
17 appropriate part of the matrix, which -- we use the word cell,
18 it sounds better than bucket -- but so that where it says
19 eight-hour TWA right there, that would be the average exposure
20 of people who used vermiculite dry and were mixers.

21 Q Okay. Could you look in your binder with me at Exhibits
22 GX-002, 003, 004, and 005, Dr. Lees?

23 A Well, not so fast here. What was the first one?

24 Q GX-002.

25

(Pause)

Lees - Direct/McMillan

71

PP
06;
R;
F;
H;
UP;
E7

Libby

1 A I'd love to help you out on that, but I don't see it.
2 GX-002?
3 Q Through 005.
4 A I don't see any 00's here. I'm sorry.
5 Q Okay.
6 A Is it front, back, middle?
7 THE COURT: Can you put it up on the chart?
8 UNIDENTIFIED ATTORNEY: What did you hand up there,
9 Scott?
10 THE COURT: Because it's not in anybody's binder.
11 UNIDENTIFIED ATTORNEY: Do you want me to put it up?
12 UNIDENTIFIED ATTORNEY: Yes.
13 MR. McMILLAN: 002 through five.
14 Q Dr. Lees, have you -- do you now see GX-002 through 005?
15 A I've got it now.
16 Q Are these the job exposure matrix that you created
17 analyzing the exposure data from W.R. Grace?
18 A Yes. Two through five are four tables taken directly from
19 my July 31 report.
20 Q And are GX-002 through 005 true and accurate copies of the
21 job exposure matrix that you created as a result of your
22 analysis of the W.R. Grace data?
23 A Yes. They appear to be.
24 MR. McMILLAN: Your Honor, I would move GX-002, 003,
25 004 and 005 into Evidence.

Lees - Direct/McMillan

72

Libby

PP
Obj.
R,
F,
S,
ET

1 MR. WEHNER: We would object on the grounds that he
2 has PCME data in there -- PCME that has been subject to the
3 PCME conversion that we discussed earlier.

4 MR. McMILLAN: Your Honor --

5 THE COURT: But he's already stated that he used
6 those conversion tables, and -- over your objection he can't
7 testify to the standards, but I think we'll admit it now
8 subject to connecting up with respect to how those data are
9 calculated. You're calling Dr. Lees -- Dr. Lee, correct?

10 MR. McMILLAN: Dr. Lee is not currently on our
11 witness list, Your Honor.

12 THE COURT: Well, how are you going to connect up the
13 standards, then?

14 MR. WEHNER: That's my point, Your Honor.

15 (Pause)

16 MR. McMILLAN: Your Honor, when I asked foundation
17 questions of Dr. Lees, what he said was that it is standard for
18 industrial hygienists to send out the samples for analysis and
19 for calculation of this type of conversion factor. This is
20 someone who is a materials scientist, and that's what he did,
21 and he consulted with Dr. Lee about how it was going to be
22 done, what standards and protocols were going to be followed,
23 and he reached agreement on that. So, the fact that Dr. Lee
24 may have run the analysis and produced a mathematical
25 conversion doesn't mean that it's not within the purview of Dr.

Lees - Direct/McMillan

73

PP
Obj:
R;
F;
H;
UP;
ET

Libby

1 Lees' expert testimony here today to say that he used the
2 conversion factor, what he specified, and why he used it.

3 MR. WEHNER: Your Honor, I'd ask for some voir dire
4 on this fact?

5 THE COURT: Voir dire on a summary chart? You get to
6 cross examine --

7 MR. WEHNER: No. Voir dire on his --

8 UNIDENTIFIED ATTORNEY: On the foundation.

9 MR. WEHNER: -- on the foundation for this PCME
10 exposure factor that he's included in his chart.

11 MR. McMILLAN: I think that's cross examination, Your
12 Honor.

13 THE COURT: I think it's cross examination, too,
14 isn't it? I have not heard of a voir dire on an issue of cross
15 examination.

16 MR. WEHNER: Fine, Your Honor. We'll stand on our
17 objection.

18 THE COURT: All right. I think it's overruled. This
19 is a summary chart, so I assume at this point in time you've
20 had access to the data that underlies the summary because I
21 don't hear an objection on that basis. To the extent that this
22 is a summary chart, it is admitted as a summary chart. Those
23 are what these purport to be, at least, 02. These are not in
24 the binders, so --

25 MR. McMILLAN: I apologize for that, Your Honor.

Lees - Direct/McMillan

74

Libby

1 THE COURT: -- I'm not sure what 03, 04, an 05 are.
2 The witness has them. I haven't seen the rest. Oh. These are
3 03. Go ahead. What's 04 and 05? All right. These are just
4 --

5 MR. McMILLAN: The table takes four pages, Your
6 Honor.

7 THE COURT: Okay. It's one table on two pages.

8 MR. WEHNER: Your Honor, we're objecting to those on
9 the same basis that I articulated just now.

10 THE COURT: Yes. Apparently it's just different
11 tables that are additional time weighted average summaries, and
12 so, I accept the objection to relate to 02, 03, 04 and 05, but
13 the objections are overruled on the same bases. These are
14 summary charts of additional evidence. This witness has
15 testified that this is customary in his field to have someone
16 else prepare the underlying data and for him then to categorize
17 it in the fashion that is categorized here. So, the objection
18 is overruled.

19 MR. McMILLAN: Can we see GG-2227, please?

20 THE COURT: In the event that your cross examination
21 indicates that there is some problem with these exhibits that
22 I'm not aware of now, because I've never heard about voir dire
23 with respect to an exhibit in this fashion, then I will subject
24 this to a different ruling at that time if this appears to be
25 an error. But at the moment I see no basis on which not to

PP
Obj.
R;
F;
H;
UP;
ET

Lees - Direct/McMillan

75

Libby

PP
Obj:
R;
F;
H;
UP;
ET

1 offer -- to admit these exhibits.

2 MR. McMILLAN: 2226. I apologize.

3 THE COURT: So, just give me a minute, please. And I
4 would like copies of these handed up. Tomorrow will be fine.

5 MR. McMILLAN: We'll do that, Your Honor.

6 THE COURT: Exhibits 02, 3, 4 and 5 are admitted.

7 (Pause)

8 Q Dr. Lees, I have shown you GG-2227, which is a summary of
9 your job exposure matrix.

10 THE COURT: This is 2226.

11 MR. McMILLAN: I'm sorry. 2226.

12 THE COURT: Okay.

13 Q Now, Dr. Lees, if we look down at the line here that's
14 highlighted, mix, wet, and sprayed, can you tell me what
15 products would fit within that category that you've created?

16 A Okay. The category is vermiculite mixed, wet, and
17 sprayed, encompasses the Monokote IV and V -- primarily the
18 Monokote IV and V spray applied fireproofing materials.

19 Q So, when there's data in the row next to mixed, wet, and
20 sprayed for asbestos, what types of asbestos fibers would
21 likely be making those data?

22 A I'm sorry. Could you ask that question again?

23 Q Sure. When you look at the numerical values you have in
24 the rows following mixed, wet, and sprayed for vermiculite,
25 which you said was Monokote IV and V, what fibers would likely

Lees - Direct/McMillan

76

PP
Obj:
R;
F;
H;
UP;
ET

Libby

- 1 make up those asbestos exposures?
- 2 A Okay. Well, it says this was vermiculite. These would be
- 3 an amphibole-type asbestos.
- 4 Q Now, when you look down at vermiculite -- sorry --
- 5 vermiculite and chrysotile sprayed, where it says paren
- 6 construction --
- 7 A Yes.
- 8 Q What type of product in that category did you have
- 9 exposure data on?
- 10 A In that category we're primarily talking about the
- 11 Monokote III material that preceded the IV and V.
- 12 THE COURT: I'm sorry. Where are you now?
- 13 MR. McMILLAN: Under vermiculite and chrysotile, the
- 14 first row that says sprayed construction.
- 15 (Pause)
- 16 MR. McMILLAN: That's now highlighted.
- 17 Q Dr. Lees, what type of asbestos fibers would you expect
- 18 would make up the exposure values you see in the row after
- 19 sprayed construction?
- 20 A Those would be predominantly, overwhelmingly chrysotile
- 21 fibers.
- 22 Q Would there be any other type of fibers in there?
- 23 A Well, since there was vermiculite present, there's the
- 24 possibility that there could be some contribution of amphibole
- 25 to that number.

Lees - Direct/McMillan

77

Libby

PP
Obj:
R;
F;
H;
UP;
ET

1 Q Is there a way in which you could use the data for mixed,
2 wet, and sprayed, which were the Monokote IV and V data, to
3 allow you to determine a rough percentage of the Monokote III
4 fibers that could be attributed to Libby amphibole?

5 A I think that can be estimated -- you know, estimated.

6 Q Well, if you look at the data that goes across for A, C,
7 D, and E, for the Monokote IV and V data, and compare it to the
8 same data for the Monokote III and the sprayed row --

9 A Um-hmm.

10 Q -- what does that tell you about what proportion of the
11 Monokote III data could be Libby amphibole?

12 A Okay. Well, let's just confine ourselves to A to make
13 life simple for a moment here. Excuse me. The vermiculite
14 mixed, wet, and sprayed, and the vermiculite and chrysotile
15 mixed, wet, and sprayed are very similar in composition with
16 the exception of, obviously, the added chrysotile in the latter
17 category there. So that in the vermiculite it's just the
18 contribution of vermiculite. In the vermiculite and chrysotile
19 it's both.

20 Q Well, what does that tell you about what proportion of the
21 Monokote III asbestos would likely be Libby amphibole?

22 A Well, just --

23 MR. WEHNER: Objection, Your Honor. This, again, is
24 beyond the scope of his report. He had nothing in his reports
25 that disclosed that he was going to be testifying about the

Lees - Direct/McMillan

78

Libby

1 relative components of vermiculite and chrysotile products of
2 Libby amphiboles.

3 THE COURT: They're on his chart.

4 MR. WEHNER: He didn't talk anything in his report
5 that he was going to be talking about the components of the --

6 THE COURT: You could have asked him that in his
7 deposition. It's in his report. I mean, it's on his chart.

8 MR. McMILLAN: All he's going to do is divide one
9 number in the chart by another one, Your Honor.

10 THE COURT: This is -- I'm sorry, but this clearly is
11 something that is evident. If it is something more than a math
12 calculation, then maybe I'll make my -- change my mind, but
13 this appears to be something all the witness is going to be
14 asked to do is to make a math calculation. If it's beyond that
15 I will reconsider. Overruled. Go ahead.

16 Q Can you tell us, Dr. Lees, the proportion for the -- all
17 the various sprayed numbers that would be made up of Libby
18 amphibole by comparing it to the Monokote IV and V numbers?

19 A Using a simple math calculation, because of the similarity
20 of the products and their use of the number .4283, roughly
21 speaking about .009 would be the contribution from the
22 vermiculite, and the remainder would be the contribution from
23 the chrysotile. So, doing the math, it looks like about two,
24 two-and-a-half percent of the fibers in that mixed category are
25 in the vermiculite and chrysotile category are attributable to

PP
Obj.
R;
F;
H;
UP;
ET

Lees - Direct/McMillan

79

Libby

PP
Obj.
R;
F;
H;
UP;
ET

1 the vermiculite.

2 Q And if you look at the C, D, and E, roughly what
3 percentage of the Monokote III data is likely to be Libby
4 amphibole?

5 A Those appear to be on the order of maybe one to two
6 percent contribution from the vermiculite.

7 Q Thank you.

8 MR. McMILLAN: Can we see GG-2228?

9 Q I want to talk, finally, about a comparison of your data.
10 If you look at this slide, Dr. Lees, you'll see that there are
11 two dotted lines on it. Do you recognize what those dotted
12 lines are?

13 A Yes. Those represent the construction industry average
14 exposures reported by Nicholson in his 1982 or '83 paper.

15 Q And do you see the small bars along the bottom of the
16 graph? What do those represent?

17 A The bars down at the bottom represent the average
18 exposures for the different product groupings and exposure
19 categories for W.R. Grace products.

20 Q And when you compare them, what do you see?

21 A Well, the Grace product exposure concentrations are
22 considerably less than those reported by Nicholson for the
23 construction industry average.

24 Q Thank you.

25 MR. McMILLAN: I now tender the witness for cross.

Lees - Cross/Wehner

85

1 (Laughter)

2 Q My name is Jim Wehner. I am with the ACC. We haven't met
3 before, Dr. Lees, but good afternoon.

4 A Good afternoon.

5 MR. WEHNER: Your Honor, may I approach the witness

6 --

7 THE COURT: Yes.

8 MR. WEHNER: -- and the bench to give you a binder?

9 THE COURT: Yes.

10 (Pause)

11 THE COURT: Mr. Wehner, are you not going to be
12 referring to the debtor's binder?

13 MR. WEHNER: No. I might be referring to one or two
14 of their demonstratives, and I'll put them on the ELMO --

15 THE COURT: All right.

16 MR. WEHNER: -- if that works.

17 THE COURT: Thank you.

18 Q Dr. Lees, you started your direct testimony by explaining
19 that what you have done is a retrospective exposure analysis of
20 those who worked with Grace products. Is that correct?

21 A Yes. That's correct.

22 Q Now, you did not review any individual claimants' response
23 to the W.R. Grace personal injury questionnaire, is that
24 correct?

25 A I saw one or two as examples, but there was really no

PP
Ct

Lees - Cross/Wehner

86

PP
Ct

1 review of the individual responses.

2 Q You haven't reviewed the exposure information that
3 individual claimants attached to their PIQ responses, for
4 example?

5 A No, I have not.

6 Q In fact, in your work in this case you have not relied on
7 the personal injury questionnaire data at all, is that correct?

8 A I stated that in my previous testimony. Yes.

9 Q You are not going to -- your opinion here is not about what
10 concentration of asbestos fibers from a Grace product any
11 particular individual has been exposed to, isn't that correct?

12 A That is correct.

13 Q And you have not determined the cumulative exposure of any
14 individual making a claim against W.R. Grace, is that correct?

15 A That is correct. I've presented the average eight-hour
16 time weighted averages -- concentration associated with a given
17 product and use.

18 MR. WEHNER: I don't know who I ask, but could I have
19 the ELMO?

20 Q Dr. Lees, do you recognize that as one of the
21 demonstratives you just used with -- in your direct testimony
22 with Mr. McMillan?

23 THE COURT: What exhibit is it, please? It's off the
24 --

25 THE WITNESS: Oh, I'm sorry. It's GG-2210.

Lees - Cross/Wehner

87

PP
CH

1 THE COURT: Thank you.

2 THE WITNESS: That's --

3 (Pause)

4 Q You explained earlier that you sorted W.R. Grace asbestos
5 containing products into several product categories; isn't that
6 right?

7 A That is correct.

8 Q Okay. And this chart shows those categories that you
9 sorted them into; is that correct?

10 A Yes.

11 Q There's vermiculite products, there's vermiculite and
12 chrysotile products, and there's chrysotile products. Is that
13 right?

14 A That's correct.

15 Q Now, Dr. Lees, you didn't go out, as part of your work on
16 this -- in your expert work for this case, you didn't go out
17 and take measurements yourself; isn't that right?

18 A That's correct. The measurements that I used were
19 collected in the 1960's, the 1970's, and the 1980's, when these
20 Grace products were actually in use.

21 Q So, your -- what you did is go out and look for historical
22 reports of Grace products and measurements that were associated
23 with those products? Is that right?

24 A That is correct.

25 Q In fact, you testified, didn't you, that there were --

Lees - Cross/Wehner

88

PP
CH

- 1 that you found about 300 such reports. Is that right?
- 2 A Yes. That's correct.
- 3 Q With respect to the product category chrysotile --
- 4 A Yes.
- 5 Q -- you found no historical measurements for any of the
- 6 products in that group, is that correct?
- 7 A There were no existing measurements. That is correct.
- 8 Q So, you don't have any historical measurements associated
- 9 with the use of those products, is that correct?
- 10 A That is correct.
- 11 Q And this category, vermiculite and chrysotile -- right
- 12 there, when you went out and looked for historical reports you
- 13 found seven? Is that right?
- 14 A No. I believe there were ten individual site reports.
- 15 Q Ten site reports contained -- ten sites -- measurements at
- 16 ten sites contained in seven reports? Is that fair?
- 17 A Semantics, but yeah.
- 18 Q That's all the historical measurements you had for
- 19 vermiculite and chrysotile, is that correct?
- 20 A In terms of direct measurements? I -- well --
- 21 Q Are you referring to something?
- 22 A I'm referring to GX-0002 through 0005.
- 23 Q Those are the portions of your expert report that
- 24 summarize --
- 25 A Correct. Correct. And the answer to your question is

Lees - Cross/Wehner

89

PP
Ct

1 yes, the data were confined to the sprayed material that fell
2 within that category.

3 Q That sprayed material was Monokote III, correct?

4 A That's correct.

5 Q So, for all the products that you put into vermiculite and
6 chrysotile, the only one you had any historical measurements on
7 was Monokote III, is that correct?

8 A Monokote III. That's correct.

9 Q So, for vermiculite and chrysotile, and chrysotile, the
10 only thing we've got are measurements at ten sites for Monokote
11 III?

12 A And knowledge of the associated other similar products by
13 which I drew some analogies, or some conclusion.

14 Q You drew analogies, but as far as the actual hard data you
15 found, it was just the Monokote III data?

16 A That is correct.

17 Q The 300 reports that you found, the rest were in the
18 vermiculite category, is that correct?

19 A Yes. That's correct.

20 Q The category vermiculite and chrysotile sprayed -- I'm
21 going to put that back up because it might be helpful for us to
22 refer to that. The category vermiculite and chrysotile sprayed
23 includes about 30 different Grace products. Is that correct?

24 A There is the Monokote III and then there are approximately
25 30 decorative or acoustical plasters. That's correct.

Lees - Cross/Wehner

90

PP
Chr

- 1 Q In vermiculite and chrysotile troweled, in that product
2 category and use subcategory, one of the products that's in
3 there is Zonolite High Temperature Cement. Is that correct?
4 A I'll take your word on that. It's a long list, and off
5 the top of my head exactly where things go I'm not certain.
6 Q Would it help you to take a look at your report?
7 A Well, I'll take your word for it.
8 Q It's in there.
9 A Okay.
10 Q But we don't have any measurements, historical
11 measurements associated with the use of Zonolite High
12 Temperature Cement?
13 A We do not.
14 Q Likewise, in vermiculite and chrysotile brushed and
15 painted category, you have Zonolite Finish Coat in there?
16 Decorator's White? You're nodding. Can you say yes or no,
17 just --
18 A I'm sorry. You're correct.
19 Q Okay. High-Sorb Acoustical Plaster?
20 A If you say so.
21 Q Okay. I'm not saying so.
22 A No. If you are --
23 Q I'm asking you.
24 A As I say, there are over 100 products, and off the top of
25 my head with these specific -- you know, a lot of these

Lees - Cross/Wehner

91

1 specific minor products, exactly where they go, there was a lot
2 of thought and study that went into it. At the time exactly
3 what ended up where I don't totally recollect at this point.

4 Q But no historical measurements for those products?

5 A That is correct.

6 Q In fact, for all the Grace products that contain added
7 chrysotile asbestos, except for Monokote III, you had no
8 historical measurements?

9 A I have -- yes. The actual measurements are limited to the
10 Monokote III.

11 Q Let's take a closer look at the vermiculite and chrysotile
12 sprayed category, and I know it's hard to remember all of the
13 products that you put in there, but --

14 MR. WEHNER: Let's put up on the screen, John, if you
15 would, ACC/FCR-532?

16 Q This is your July 31st report, I believe, the same one
17 that you referenced in your direct testimony.

18 MR. WEHNER: If you could put up Page 68?

19 Q Do you see the Page 68? Just zoom back out so we can have
20 a look at the page. Do you recognize that --

21 A Yes.

22 Q -- Dr. Lees?

23 A Yes.

24 Q That's Page 68 of your July 31st report?

25 A That's correct.

PP
Cr

Lees - Cross/Wehner

92

- 1 Q And that has a list of the products that you put in this
2 category, vermiculite and chrysotile sprayed?
3 A That's correct.
4 Q Zonocoustic MK2 vermiculite acoustical plaster, all of
5 these products you have put in this category?
6 A That's correct. They were placed in that category on the
7 basis of their composition --
8 Q Right.
9 A -- as I stated earlier.
10 Q Now, all of these products don't have the same amount of
11 asbestos in them, is that correct?
12 A They are within a range close.
13 Q They're close?
14 A Yes. They're not exact. They are similar would be a good
15 way to characterize it.
16 Q Do you see down on the list Prep-Coat #5?
17 A That's one of the ones listed.
18 Q That's right. That has five to seven percent asbestos by
19 weight, is that correct?
20 A Again, I will -- if you've read that, and that's correct,
21 I will take that -- I don't have a specific recollection of all
22 these -- details of all these hundreds of products.
23 Q You put that number in an appendix to your June 11th
24 report, didn't you?
25 A The data in terms of the composition have been presented

pp
etc

Lees - Cross/Wehner

93

PP
Ctr

- 1 in my reports. That's correct.
- 2 Q Let's take a look at your June 11th report, ACR -- I'm
- 3 sorry -- ACC/FCR-531. If you -- this is your June 11th report.
- 4 Do you see that?
- 5 A Yes.
- 6 Q Do you recognize that as your report?
- 7 A Yes.
- 8 Q Okay. Let's go to Appendix B of that report, which is the
- 9 reproduces product appendix.
- 10 MR. WEHNER: Can we see the first page of Appendix B
- 11 there? Let's go to the first page of Appendix B, so it would
- 12 be back, I think, to Page 1 of that particular series.
- 13 (Pause)
- 14 Q Do you recognize this as Appendix B of your June 11th
- 15 expert report?
- 16 A It appears to be. Yes.
- 17 Q Now, let's go to Page 25 of that appendix. We see Prep-
- 18 Coat there. Do you see the entry Prep-Coat?
- 19 A I do.
- 20 Q Okay. Do you see, in Paragraph G, J, it says
- 21 approximately five to seven percent asbestos by weight?
- 22 A Yes.
- 23 Q Do you have any reason to doubt that that's correct?
- 24 A This was taken directly from a Grace disclosure. This is
- 25 a Grace disclosure document, as it says on the beginning of the